CLINICAL EXAMINATION OF PARKINSON’S DISEASE PATIENTS

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Disclosures

- None
Learning Objectives

- Identify the phenotypic spectrum of parkinsonism
- Illustrate the clinical phenotype of Parkinson's disease
- Demonstrate clinical techniques for examining patients with Parkinson’s disease
- Describe the clinical clues useful in the diagnosis of Atypical Parkinsonism
The Etiology of Parkinsonism

Parkinsonism

Degenerative
- Parkinson's Disease
  - Alpha-synucleinopathy
    - Multiple System Atrophy (MSA)
    - Dementia of Lewy-bodies (DLB)

Atypical Parkinsonism

Symptomatic
- Secondary
  - Tauopathy
    - Progressive supranuclear Palsy (PSP)
    - Corticobasal Degeneration (CBD)
Parkinsonism

- Parkinsonism remains defined as **bradykinesia** plus rigidity and rest tremors or both

- Bradykinesia
  - decrement in speed or amplitude is required
Bradykinesia

Look for a Decrement of (speed and amplitude)
Tremor

Rest Tremor
- Rest means REST!
  1. No muscular activity
  2. No Gravity
- Re- Emerging-Phenomenon

Action Tremor
- Postural Tremor
- Kinetic Tremor
- Intention Tremor
  - Increased amplitude when approaching goal

Parkinsonian Tremor
- Maintaining a position against gravity

Essential/Dystonic Tremor

Cerebellar Tremor

Video
Rigidity

- Velocity-independent hypertonia often with cogwheel phenomenon
  - Involving 2 joints
- Differential diagnosis:
  - Spasticity: velocity-dependent, flexors more involved than extensors
  - Paratonia: inconsistent, distractible “Gegenhalten”
Clinical Presentation of Parkinsonism

Bradykinesia

Video

Resting Tremor

and/or

Rigidity
General Examination

The face can give you a clue

"Procerus sign"
Astonished look of the PSP patients

In PD-
Face lacks expressive mobility (hypomimia)
Reduced blinking, 2-10 per min
Hypophonia and monotonous speech

Video
In clinical examination, try to avoid cueing.

- Reduced Arm swing
- Festination of gait
- Freezing of gait
Axial Symptoms- Axial Dystonia

- Retrocollis
- Anterocollis
- Camptocormia
- Pisa-Syndrome

PSP

MSA

PD

MSA
Axial Symptoms- Postural instability

- Postural stability in Pull-test
- Postural instability in Pull-test
- Spontaneous Postural instability in Pull-test
To Complete your examination

- Don’t forget to look for:
  - Cerebellar Signs
  - Postural blood Pressure
  - Cognitive examination (MoCA)
Key Message

- Bradykinesia, resting tremor, rigidity and postural instability detection are the main clinical signs of Parkinson’s Disease
- Clinical signs can vary during the clinical examination
- Recognizing the red flags for atypical Parkinsonism is crucial
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5. Movement Disorders , Ray L. Watts, David G. Standaert, 2011